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(71) Applicant (for all designated States except US): SHI-MADZU RESEARCH LABORATORY (EUROPE) LTD. [GB/GB]; Wharfside, Trafford Wharf Road, Manchester M17 1GP (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): DING, Li [CN/GB];

1 Wenlock Road, Sale, Manchester M33 3TR (GB). NUTTALL, James, Edward [GB/GB]; 3 Reeds Close, Rawtenstall, Rossendale, Lancashire BB4 8ND (GB).

(74) Agent: MATHISEN, MACARA & CO.; The Coach House, 6-8 Swakeleys Road, Ickenham, Uxbridge, Middlesex UB10 8BZ (GB).

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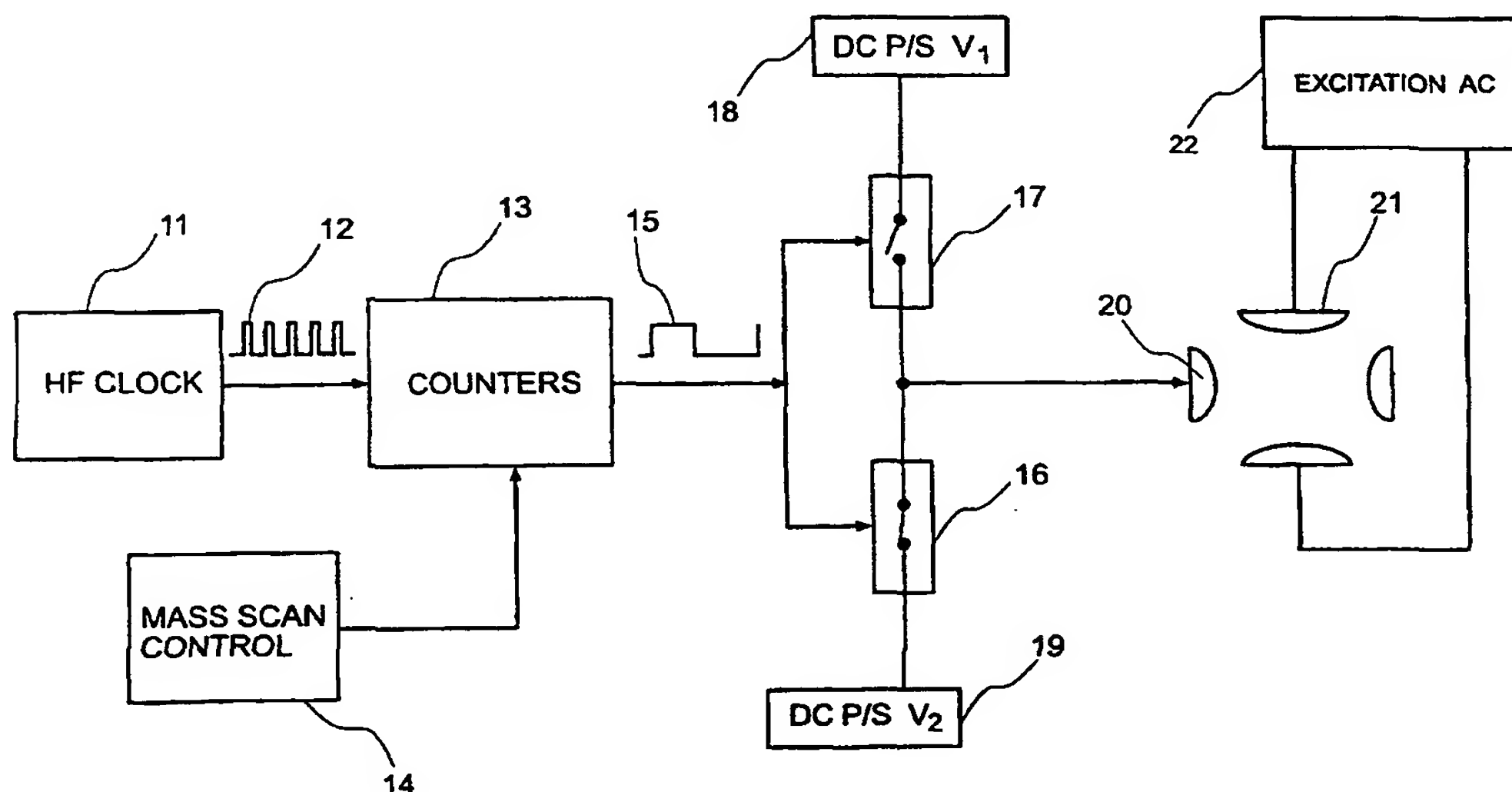
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(54) Title: METHODS AND APPARATUS FOR DRIVING A QUADRUPOLE ION TRAP DEVICE



(57) Abstract: A digital drive apparatus (Fig. 3) for quadrupole device such as a quadrupole ion trap has a digital signal generator (11, 13, 14; 24, 25, 26) and a switching arrangement (16, 17) which alternately switches between high and low voltage levels (V_1 , V_2) to generate a rectangular wave drive voltage. A dipole excitation voltage is also supplied to the quadrupole device to excite resonant oscillatory motion of ions.

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